Table 103

Band	Position of new taps on PA tank coil
24MHz	Midway between existing 21 and 28MHz taps
18MHz	Midway between existing 14 and 21MHz taps
10MHz	Midway between existing 7.0 and 14MHz taps

Note: The above taps will work satisfactorily but it is worth trying the position of the taps a turn or so either way, for optimum loading and output. We have modified for *KW2000* so far and the 10MHz tap is one case needed 3 more turns for optimum performance.

appropriate crystals as fitted in the modifications, but do make *sure* that you have tuned the coils to the correct harmonic of the crystals!

2. RF and driver stages: If you have fitted the crystals for the new bands during the previous stage of the modifications, first remove them again!

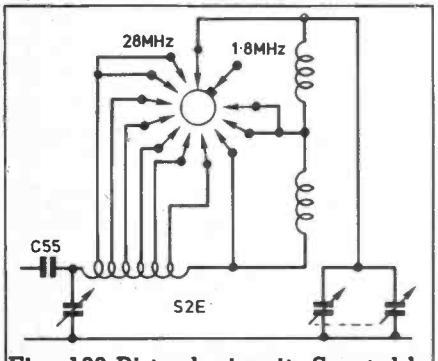


Fig. 133 Pi tank circuit. See table 103 for details of new taps required.

Select 24MHz, inject a signal at Pin 2 of V7, and set *KW2000* to INT MOX. Connect the output of the tranceiver to a dummy load. Adjust the PRE-SELECTOR so that the pointer lies midway between the 28 and 21MHz markings. Set the signal generator to a frequency in the middle of the 24 MHz band, and to an output of approximately one volt. Adjust L_A (S2d) for a rise in PA anode current. Tune and load the PA for a shallow dip into a dummy load/wattmeter, and then re-adjust the alignment of L_A, reducing the output from the signal generator if necessary to keep the PA current below 100mA on the *KW2000,* or 200mA for other versions.

Once the driver anode circuit has been aligned, remove the signal generator from V7 grid and connect it to Pin 2 of V5 (second transmit mixer). Proceeding as above, align L_A (S2c), which is in the anode circuit of V5.

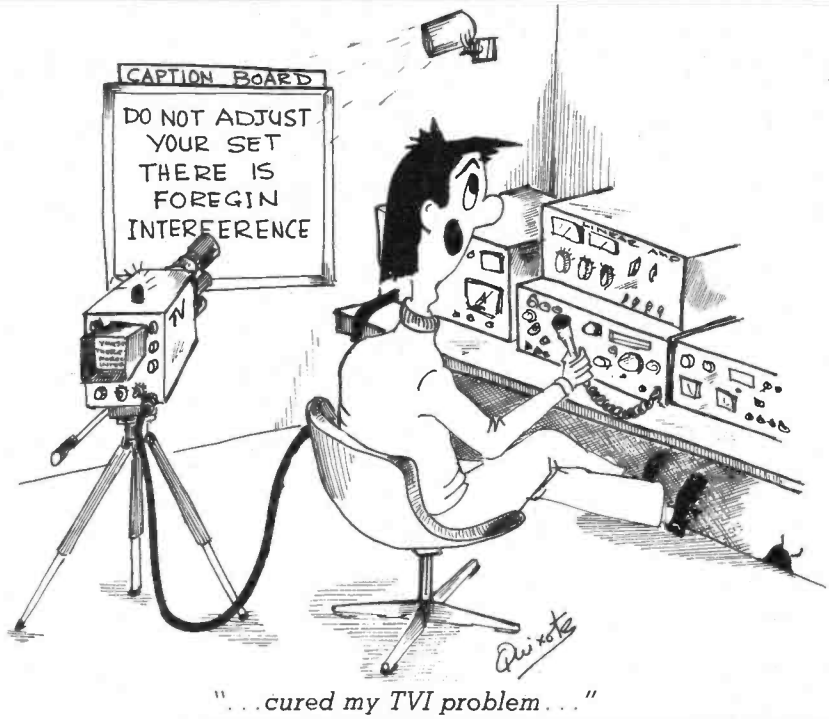
Now change bandswitch to 18MHz, set the pre-selector to midway between the 14 and 21MHz segments, and set the signal generator to the centre of the 18 MHz band. Remove the 18MHz band HF oscillator crystal, and then align L_B (S2d) and L_B (S2c) following the procedure given for the 24MHz band, not forgetting to tune the PA correctly into a dummy load. Finally repeat the procedure for 10MHz, setting the pre-selector midway between the 7 and 14MHz segments and adjusting L_C (S2d) and L_C (S2c).

Now refit all HF oscillator crystals. Set the bandswitch to 24MHz, switch to TUNE and adjust pre-selector and PA as in the instruction manual. *Without altering* the pre-selector setting, switch to receive and connect the signal generator to the aerial socket of the rig. Set the generator to about 24MHz and adjust its tuning until its output is heard on the *KW2000.* Ensure that the signal from the generator is centred in the receiver passband, and then adjust L_A (S2a) for maximum S meter reading, reducing the output level of the generator if necessary to keep the S meter reading below S5. Repeat the procedure on 18 and 10MHz in that order, adjusting L_B (S2a) on 18MHz and L_C (S2a) on 10MHz. The temptation to use off-air signals for this should be resisted, since your aerial may not present the correct 50 ohms impedance to the rig, which will affect the setting of the front end tuned circuit. For the same reason, do not re-adjust the setting of the front end coils after carrying out the adjustment with the signal generator as described above.

Modification for 10MHz only

It is, of course, possible that, like one of the writers, you may only wish to fit the 10MHz band and not the other bands, at any event in the initial case. In this case, of course, a single pole two position switch can be used in the S1000 position, and of course only the extra coils appropriate to the 10MHz band need be fitted!

The next article in this series will cover the improvement of the front end performance on the lower frequency bands, and provision for a separate outboard receiver, and separate receive and transmit aerials.



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